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CS372

Project Specifications

**Problem and Solution:**

Both of my siblings have type 1 diabetes. This requires checking blood glucose multiple times a day. These numbers are supposed to be in a certain range. If they are not in that certain range, there are physical complications because the environment is not normal. My youngest brother is twelve and has started puberty. This makes it even harder to keep the blood glucose numbers in the right range. My mom is taking care of everything because my brother isn’t ready to take care of himself.

My application will have a table to take in blood glucose data from the user on the blood sugars. This data and the dates and times when the blood glucose was taken will be saved in .txt files depending on the day. So, each day worth of blood glucose data will be saved in a separate .txt file. The application will then take the data from the last 7 days and analyze it; pointing out patterns where the data higher than the maximum in the range and where it is lower than the range’s minimum depending on the time of day.

It will also include a line graph, in a tabbed pane, of the data that is in the table. This will give a better visual representation of the data.

There will also be options to save current files and to open previous files.

**Challenges:**

There will be two major challenges that I know that I will run into. The first challenge will be the JTable. I have experimented a little with this swing object and I am running into some problems with the concept of how to use it. To overcome this challenge, I am planning on sitting down and experimenting with a smaller JTable to figure out exactly how to use it. I might also look up tutorials online about how to use it. The second challenge will be the line graph. I am planning on using the jFreeChart package that I have found online. I did a little bit of research online on how best to implement a graph of data. This tool was the one that was recommended highly by a lot of people. The challenge here will be implementing the graph. This does not have nice GUI objects for the palette in NetBeans, so there will be no generated code. This will be an interesting challenge.

**Schedule:**

January 16 – Create the GUI for the main application and figure out how to use a table

January 17 – Figure out how to use a table and implement this in Blood Glucose App. And figure

out how to use a graph.

January 18 – Optional: Start on TableData, FileIO and InvalidInputGUI

January 19 – Finish TableData, FileIO and InvalidInputGUI

January 20 – Finish GBReport

January 21 – Start AnalyzeData

January 22 – Get ready for a beta test

January 23 – Finish AnalyzeData

January 24 – QA and Touch up

January 26 – QA and Touch up

January 27 – Finish App and turn in